DOCUMENT RESUME

ED 027 966 PS 001 619

By-Radin, Norma

Piaget, Skinner, and an Intensive Preschool Program for Lower Class Children and Their Mothers.

Ypsilanti Public Schools, Mich.
Spons Agency-Office of Education (DHEW), Washington, D.C. Bureau of Elementary and Secondary Education.
Pub Date 28 Feb 68
Note-18p.; Paper presented at the meeting of the Council of Exceptional Children, New York City, New York, April, 1968
EDRS Price MF-$0.25 HC-$1.00
Descriptors-*Cognitive Development, Comparative Analysis, *Curriculum Development, Home Visits, Parent Attitudes, *Parent Education, *Preschool Curriculum, Symbolic Learning, Team Teaching, *Tutorial Programs
Identifiers-Piaget

In an early education program, 100 disadvantaged 4-year-olds (50 Negroes and 50 whites) attend classes one-half day, four days a week, from October through June. A teacher visits each child's home every other week to conduct a tutorial session lasting 1 1/2 hours. Three objectives of the program are (1) to develop a preschool curriculum based on Piaget's theory of sequential development of intelligence, (2) to develop a model of curriculum innovation in a school system utilizing a theorist, a diffuser, and a teacher, and (3) to develop a group parent education program. Goals of the preschool curriculum are (1) to facilitate the movement of the children from the sensory-motor period to the preoperational period and (2) to help children move from the concrete to the symbolic level. The theorist derives specific goals from the abstract theory, which serves as the foundation for the program. The master teacher (diffuser) translates these goals into specific teaching activities and works with the classroom teacher (chosen for her interest in a new curriculum and her willingness to try unorthodox approaches), who provides feedback relevant to the effectiveness of the curriculum. In a pilot program in 1968, involving 20 children, the mean gain on the Stanford-Binet Intelligence Scale was 13.7 points. (DO)

U. S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

YPSILANTI PUBLIC SCHOOLS

PIAGET, SKINNER, AND AN INTENSIVE PRESCHOOL PROGRAM FOR LOWER CLASS CHILDREN AND THEIR MOTHERS*

Norma Radin
Research Coordinator
February 28, 1968

*Funded under Title III
of the Elementary and Secondary Educational Act

Paper read at April, 1968, meeting of the
Council of Exceptional Children in New York City

PS001619

As the title of this talk indicates, I am going to discuss a program which uses the theories of two men whose views are not often incorporated into one program, Jean Piaget and B. F. Skinner. As a matter of fact, I am not certain that either gentleman would feel completely comfortable about the juxtaposition of their names. Nevertheless, the staff members of the Early Education Program have found the combination to be highly effective and practical. Piaget's theory provides the foundation for the preschool curriculum which has as its major goal the cognitive growth of the children, a prerequisite for subsequent achievement in school and fulfillment as a thinking human being. Skinner's work forms the basis of the parent education program which focuses on teaching parents child management skills deemed essential for a gratifying, growth-producing home life. It is our feeling that the program would be incomplete without either phase, or either theory.

The Early Education Program involves, as participants, 100 four-year old children who come from disadvantaged homes. One-half of the youngsters are Negro and one-half white; one-half are boys and one-half are girls. The children attend class one-half day four days per week from October through June. There are ten children, one teacher, and one aide in each classroom. In addition, each child is visited in his home every other week by his teacher who conducts a tutorial session, lasting about one and one-half hours, while his mother is present.

The goal of the home visit is two-fold: to involve the mother in the educative process so that she may incorporate the role of teacher in her every day activities with her children, and to meet the child's individual cognitive needs which cannot be dealt with adequately in the group setting. For example, it is during the home visit that diagnostic instruments are administered which enable the teacher to assess the child's specific strengths and weaknesses. With this knowledge, she is able to attend

to particular difficulties he is having. To insure the maintenance of a tutorial relationship with mother and child, an aide accompanies the teacher when other children are present and conducts an enriched play program, a dilution of the preschool program, for the younger siblings.

The Early Education Program has three major objectives:

1. To develop a preschool curriculum for use in a classroom and in a home tutorial setting based on Piaget's theory of the sequential development of intelligence.

2. To develop a model of curriculum innovation in a school system utilizing a triad of theorist, diffuser, and classroom teacher.

3. To develop a group parent education program focused primarily on teaching mothers how to foster the development of internal control in their children, through the use of a behavior modification technique.

Insofar as the Piagetian curriculum is concerned, a full description of the content and methodology would be beyond the scope of this paper. Part of the curriculum has already been described in articles in Young Children and the Journal of Creative Behavior. Fundamentally, the program is based on Piaget's concept that intelligence develops by qualitatively distinct periods, the sensory-motor period, the pre-operational period, the period of concrete operations, and the period of formal operations. Attainment of a later stage is not possible without solid attainment of the earlier stages. Although the age at which children enter any of the periods may vary, the sequence is invariant. Passage through the stages grows out of the coordination of actions, at first physical, and then mental, rather than by manipulation of symbols.

The curriculum goals are founded on Piaget's two aspects of knowledge: (1) the operative aspect which involves various types of mental operations, and (2) the figurative aspect which pertains to the type of symbolization involved in the operations. Examples of operative knowledge are the ability to classify, and the ability to seriate, or order things, according to an ascending or descending scale. Operative knowledge also includes the

ability to handle numbers, spatial relations and temporal relations. The figurative aspect of knowledge pertains to the various levels of symbolization from the concrete object per se, to parts of the objects, an imprint or sound made by the object, a representation of the object, and finally to the word representing the object.

One of the major curriculum goals is to facilitate the movement of the children from the sensory-motor period, where most of them are initially, to the pre-operational period. In specific terms, facilitation of movement out of the sensory-motor stage involves, providing a structured setting in which the children can learn to classify objects into an increasing number of categories, to seriate three, four and eventually seven and eight objects, and to comprehend the meaning of numbers so that they will be recognized regardless of whether the objects are spaced far apart or massed together.

The second major curriculum goal pertaining to the figurative aspect of knowledge consists of helping the children to move from the concrete to the symbolic level. This procedure involves more than merely teaching the children to associate a word with an object. To truly learn a word, the child must be able to perform the same mental operation with the word that he can perform with the object it represents. Irving Sigel of Merrill-Palmer Institute, for example, found that disadvantaged preschool children have a much harder time categorizing life-sized, colored pictures of familiar objects, such as a cup and a pencil, than they do with the objects themselves, in spite of the fact that the children could label the objects in the pictures with no difficulty. This phenomenon was also found in the Early Education Program. Most of the children are initially unable to perform mental operations with representations of objects. For this reason, training in classification, seriation, spatial relations, etc. starts at the sensory-motor level. To provide training in classification,

children are given kits with toy objects which can either be put on the foot, such as a sock and a shoe, or on the head, such as a cap and a fireman's hat. The children are asked to put the objects together which go together. If they cannot, the teacher asks the child to show her what one does with each object. It has been found that by going through the motions in a sensory-motor fashion, or by motor-encoding, the children quickly see that the objects can be put into two groups. It is not critical initially that the children use appropriate words to explain the basis for their classification. It is sufficient that they be able to show the teacher what can be done with the two groups of objects. By performing the physical operation on the object, the ability to perform the operation mentally is facilitated. Soon, when presented with other kits of items, such as those which can be eaten or bounced on the floor, the children are able to perform the operations mentally, and can correctly place the objects into two categories with no difficulty.

Socio-dramatic play is another sensory-motor activity used to facilitate cognitive growth. When used in the manner described by Sarah Smilansky it has been proven to be a priceless vehicle for advancing the children into the symbolic world. For example, in playing "mother," the children are soon able to use blocks for food, and straws for candles, after starting with the concrete objects themselves. They learn the vital lesson that anything can be made to "stand for" something else.

In learning spatial and temporal concepts, the children physically move over and under a table, or inside and outside a box and thus build up concepts. Similarly, in going through a sequence of physical activities the children begin to learn the meaning of "first", "last", and "next to the last".

Words are not ignored, however. A modification of the Bereiter-Englemann program consisting of patterned language drills is also included

in the program. In the Early Education Program, however, language is not taught for cognitive development as it is by Bereiter and Englemann. Rather, it is included to help the children focus on concepts and retrieve them. It also enables the youngsters to express the ideas they have, and hence, communicate with one another, correcting one another's misperceptions. The pattern drill is not seen as a mechanism for teaching concepts but is important in helping children to use the concepts they have acquired through a non-verbal sensory-motor training program.

The curriculum development process entails three phases:

1. The delineation and sequencing of specific goals within each of the cognitive areas. In classification, for example, the goal might be the dichotomization of food vs. "things to write or draw with".

2. The development of a variety of teaching activities to help the children reach each goal. An example would be using a variety of kits which include various food items and pencils, crayons, pens, and paint brushes to be sorted.

3. The development of diagnostic tasks to determine whether or not the children have mastered the concepts being taught.

A description of how these steps are implemented brings us to the model of curriculum innovation which is being developed, or the second objective of the Early Education Program. The most critical part of the paradigm, which can be transposed to any grade level, involves combining the efforts of three categories of staff members:

1. A theorist who thoroughly understands the abstract theory serving as the foundation for the program and is able to derive specific goals for the children from the theory.

2. A master teacher who is able to comprehend the essence of the theory as interpreted by the theorist and capable of creatively translating the goals into specific teaching activities. The translation process

PS001619

involves close coordination with the classroom teacher who participates in the designing of each activity and provides feedback about its effectiveness.

3. A classroom teacher who is selected on the basis of her interest in helping to develop a new curriculum and willingness to try unorthodox approaches when recommended by her curriculum supervisors.

In the Early Education Program there is one theorist, two diffusers, and ten classroom teachers. Whether or not this ratio can be altered without damaging the efficacy of the model remains to be tested. A third diffuser in the program performs a role that is becoming increasingly important in early intervention programs. She supervises the ten non-professional staff members. After participating in discussions with the curriculum supervisors, she explains to the aides how the teachers will be implementing the goals and discusses their role in assisting the teacher. In addition, modifications are made so the curriculum can be used for children below the age of four during the home visit.

The theorist and diffusers meet several times per week to select and discuss the goals for the coming fourteen days as they review the progress of the children revealed by their performance on diagnostic tests. New diagnostic tasks are also developed at this time. Each diffuser meets with five teachers weekly to discuss the children's progress and techniques of implementing the new set of goals. The entire staff, including the aides, meets as a unit on Friday when most of the day is devoted to hearing a presentation of theoretical material, and reports of other project members, such as the research associate and the social group worker conducting the parent program.

Thus far, the model appears to be generating great enthusiasm and a strong sense of cohesion. A feeling of great fortune in being part of the program appears to be pervasive.

The applicability of this paradigm to the kindergarten level is currently being tested in a supplementary kindergarten program primarily for children who participated in a pilot preschool program conducted last spring. In the SKIP Program, (Supplementary Kindergarten Intervention Program), there is also a teacher eager to try the new approach, a master teacher serving as a diffuser, and a theorist, the same one working on the Early Education Program, Dr. Constance Kamii, interpreting Piaget's theory and deriving goals from his concepts of cognitive growth. The enthusiasm and cohesion evident in the Early Education Program quickly developed in the SKIP Program in spite of the usual difficulties entailed in instituting a brand new program in a school system. Although there is no question that a capable staff is essential to the success of any program, it does appear that the paradigm which has been developed utilizes and organizes these capable people in a highly effective manner.

The third major objective of the Early Education Program is the development of a parent education program, primarily focused on inner control, and secondarily on cognitive development. The staff feels that growth in both intellectual ability and self-discipline are essential for success in school, and ultimately in our industrial society. Time has not permitted a discussion of the fostering of inner control in the class program, but it is an intrinsic part of the curriculum. The children are taught to plan ahead, to anticipate consequences of their actions, to make choices when given alternatives, to adhere to the decisions they have reached, etc. In turn, a portion of the parent-education program is devoted to teaching parents how to foster the cognitive goals of the program which are interpreted to them. The twin objectives of intellectual development and self-direction permeate all activities of the Early Education Program. The former merely has greater emphasis in the work with children and the latter in work with groups of parents.

A research design has been built into the parent program to test the effectiveness of the program per se, as well as the effectiveness of two modes of presenting the same content. Thus, there are three groups of parents, matched on critical independent variables and willingness to participate in the meetings. One group serves as a control group and is not involved in any group sessions. The other two groups serve as treatment groups, each presented with the same content in a different way. The two treatment groups are divided into small discussion groups of approximately 10 mothers who meet weekly with a social worker in a school or community center. Baby-sitting and transportation are both provided free of cost. Each meeting is preceded by written and phone reminders of the next session. Incentives for attending the meetings are also provided to both treatment groups. At almost all meetings, an inexpensive educational gift for the child, such as a book or puzzle, is presented to each mother who is present. Further, mothers who attend a specific number of meetings are presented with additional, more personal gifts, and a diploma, three times during the year.

The content of the parent education program consists for the most part in a Skinnerian behavior-modification approach to child management. Reinforcement patterns are used as a foundation for the development of inner control by the child. For example, as reinforcement is provided extensively by the mother to increase the frequency of a specific desirable behavior, the behavior itself comes to be associated with pleasure and its performance will become self-reinforcing. At this point, external rewards by parents will no longer be necessary.

The parent curriculum is divided into three units of approximately six weeks each. There is a break of three weeks between units, each presented as an entity having its own introduction and summary. Unit I focused on principles of behavior modification which were related to

specific child-management problems suggested by the mothers. The first lesson dealt with an overview of behavior modification, differentiating contingencies which increase or maintain behavior, contingencies which reduce the frequency of behavior, techniques of shaping new behaviors, etc. The second lesson pertained to intermittent and continuous reinforcement schedules and their consequences. The third lesson differentiated primary and secondary reinforcements. The fourth dealt with punishment, and the fifth with other techniques of reducing the frequency of undesirable behaviors. The sixth lesson and last was a summary of the entire unit.

Unit II, now in progress, focuses on activities the parents can engage in to foster the cognitive development of their children. The intent is to indicate techniques by which commonplace household and play activities can be utilized to reinforce the classroom goals. The unit started with an observation of the class program preceded by a talk by one of the curriculum supervisors discussing the preschool curriculum. The weekly lessons are paralleling the class program. For example, one lesson focuses on how parents can encourage and help their children to engage in socio-dramatic play at home to facilitate their ability to handle symbols. Another lesson indicates how music can be used to foster motor encoding by acting out the words to songs. A third lesson points out how trips to the grocery can become golden opportunities to enhance classification skills in discussions about the meat department and the varieties of meats, the dairy sections and varieties of dairy foods, types of cereal, etc. Throughout this unit the principles of behavior modification discussed in Unit I are continuously employed. Thus, the parent is encouraged to offer praise when the child elaborates his role in a make-believe session, or is taught to shape the child's behavior by reinforcing approximations of the desired response when the child has difficulty performing a task, such as taking the role of grocer.

Unit III will focus on fostering self-reinforcement or inner control by the child. Once again, paralleling the class program, specific lessons will deal with offering reinforcement for manifestations of inner control, such as waiting for one's turn, and with giving children choices and structuring the situation so that he is strongly rewarded only for adhering to his decision. The transition from external reinforcement provided by the parent, to internal reinforcement coming from the child himself will also be discussed, along with the phenomenon of intrinsic rewards evolving out of successful experiences with a particular activity.

The two modes for presenting the above content are the Lecture Approach, typical of many parent education programs, and the Participation Approach, in which the parent actively engages in some aspect of the program. An example of participation would be completing a homework assignment, role-playing or rehearsing in the group sessions, and commenting upon role-playing by staff members.

By comparing the attitudes and behaviors of the parents in the three groups, as well as the progress of their children, some tentative conclusions can be reached by the end of the year, it is hoped, concerning the effectiveness of the parent program and the optimal method of presenting the content.

Although the school year still has several months to go, and the post measures have not been taken as yet on the instruments evaluating the parent program, some subjective comments can be offered. The most outstanding phenomenon is that each group has developed a core of enthusiastic members, about one-third of the total number, who come regularly and give every indication of using the material they are learning. For example, one mother reported of her daughter, "She really learned to put her toys away when I started using that reward system instead of just nagging her. Now she does it without any stars, just my praise sometimes".

Another mother reported, "I guess I'm really learning to use those new practices you've been teaching us, and it's not just my preschoolder that's benefiting. It's my older boy, too. Instead of yelling at him or spanking him, I've been doing some of those things you told us about and do you know he raised every single one of his grades on his last report! He seems much more relaxed and happier since I've been less cranky with him."

Finally, this comment from a third mother, "You taught us to give our kids alternatives instead of flat orders all the time. The other day I forgot to, and I ordered my daughter to stop yelling. She caught me short and said, "You forgot my choice, Mommy, what is my other choice?" Giving alternatives really results in her choosing one and sticking to it. It really helps."

On the other hand, each group has a core of non-attenders, also, about one-third, who never attended a single meeting, although each week almost all asked to be reminded of the next session. These women appear to be the most disadvantaged. At the moment, plans are underway to offer them a differential program. Before the school year ends, a team of two of the active mothers will visit the homes of some of the non-attenders and summarize what has occurred in the meetings. Possibly, a second non-attender will be asked to join the trio, and a small group session will be held. The active members, who appear to be developing missionary zeal, reacted very positively to the possibilities of this approach.

The rather unexpected situation that has developed is that the members of the lecture group appear to be as involved in the program as the participation group. It has been found that mothers will not accept a lecture followed by a brief discussion. They ask questions, make comments during the talk, and won't go home until they've discussed what is on their minds. On the other hand, in Unit I, the members of the participation

group were very reluctant to engage in role-playing, possibly because they found the area too threatening. The situation seems different in Unit II, which focuses on cognitive development. For example, mothers who were very reluctant in Unit I to enact the role of the parent finding her child playing with matches, seem, in Unit II, to enjoy taking the part of an animal to rehearse for socio-dramatic play with their children.

The tentative conclusion that has been reached thus far is that a participation approach may not be equally suited to all types of content, at least not with disadvantaged group members. Further, it appears that content can be communicated and group cohesion developed purely through verbal interaction, even with women from low-income homes. Whether there is something inherently attractive in behavior modification principles not present in other areas which might have been discussed, is not known. We have also learned that offering concrete incentives for attending meetings and eliminating all conceivable obstacles to group participation is not enough to overcome the resistance of some mothers to meeting outside of their homes with a group of unknown women. As I have indicated previously, we are beginning to feel a different approach is necessary with these individuals. Taking a lesson from good behavior modification techniques, we are now trying to proceed by small steps. We are reducing the group size to three, trying to hold it in the member's own home, and using only non-professionals in initial contacts. It is hoped that through a series of "mini-group" sessions such as these, the mothers will eventually feel comfortable enough to join the larger group.

Because the school year is not yet over, I cannot provide any information as to how effective the Early Education Program as a whole has been. However, as a prediction of possible outcomes, I would like to mention briefly some results that were obtained on last year's five and one-half month pilot program for the Early Education Program. The project was

known as the Gale Preschool Program and involved 20 disadvantaged four-year old children. The format of the program was identical with the Early Education except that there was no group parent program. Dr. Constance Kamii, our theorist, was in Geneva at the time studying under Piaget, so communication about the curriculum, which was in its infancy, had to be conducted via mail. Nevertheless, it was found that the mean gain on the Stanford-Binet Intelligence Scale was 13.7 points. The children's interest in academic affairs increased significantly according to a standard teacher rating form, the Pupil Behavior Inventory. The parents were found to increase, overwhelmingly, the amount of education they felt their children must have, the amount of schooling they expected their children to receive, and the educational materials available in the home. The grades that would satisfy the parent dropped, however. It is felt that this may not be undesirable, as their standards for their children may have been becoming more realistic and hence, better for their children, according to Irwin Katz.

The most surprising finding was that the best predictor of gain in Binet IQ, explaining 49% of the variance, was a factor on the Pupil Behavior Inventory, pertaining to dependency of the child. The children who were seen as possessive of the teacher and seeking constant reassurance were the children who gained the most. The correlation was highly significant when each teacher's class was examined separately or the entire group combined. The hypothesis offered is that dependency is actually "susceptibility to social influence" as described by Walters and Parke, and this characteristic is a great asset for young disadvantaged children who are likely to be alienated and distrustful of adults. Perhaps orienting oneself toward adults and perceiving them as reinforcing agents is an important precursor for cognitive growth among preschool children from low-income homes. The possibility that such a linkage exists is

currently being explored in greater depth.

One disturbing finding arose out of a post-post testing of the Gale graduates conducted late in August, two months after the program had ended. The purpose was to determine the stability of the gains achieved in preschool. It was found that the gain on the Peabody Picture Vocabulary Test held up completely, but there was a 6.4 point drop on the Binet. The decline was virtually identical for children who had attended a summer Headstart Program and those who did not. An item analysis was performed on the Binet, and it became clear that the loss did not occur uniformly across all items. Those pertaining to abstract concepts, such as spatial relations and classification, showed a sharp drop. On the other hand, items tapping purely perceptual or labeling skills either showed no decrement at all or a gain. The conclusion reached was that teaching verbal and perceptual skills is far easier than teaching concepts. Two efforts are currently being made to remedy the situation. The Early Education Program's preschool curriculum is being carefully developed, with continual diagnostic testing, to be certain that the children are comprehending what is being taught. In addition, the Supplementary Kindergarten Intervention Program, referred to previously, is continuing the Piagetian and language training program during the half-day when the children are not in regular kindergarten. It is hoped that by extending the period of exposure to the program, the growth displayed in the preschool program will be preserved.

Before concluding, I would like to put the Early Education Program in a frame of reference by comparing it with four other intervention programs involving young children currently in operation in the USA. Many other programs could have been chosen, but these four have such distinctly different orientations that contrasts emerge very clearly. The four are the programs conducted by:

1. Ira Gordon in Gainsville, Florida
2. Sigfried Englemann in Urbana, Illinois
3. Susan Gray in Nashville, Tennessee
4. Bettye Caldwell in Syracuse, New York

Ira Gordon, of the University of Florida, is operating a project which resembles the home visit aspect of the Early Education Program, but involves a much younger population. A group of low-income mothers is visited weekly in their homes by non-professional Parent Educators, starting at the time the children are six weeks of age, and continuing until they reach their first birthday. A second group of children will receive weekly home visits between their first and second birthdays, while a control group of youngsters will receive only visits from nurses. Thus, both the efficacy of the home education program and the optimal age of instituting it are being evaluated. The emphasis in the home instructional program, which has a strong Piagetian slant, is on demonstrating to the parent techniques of stimulating the child's sensory-motor development and of engaging in play activities with the child which will foster his cognitive development.

A program that has points of similarity with the classroom phase of the Early Education Program is Sigfried Englemann's project with four-year old children at the University of Illinois. He is modifying the now familiar Bereiter-Englemann curriculum. The language segment has been retained, but the arithmetic and reading portions have been dropped. In their place is a new curriculum, oriented toward teaching the children skills required for success on the Stanford-Binet Intelligence Scale. The rationale behind this approach is that if the Binet predicts school competence, it is logical to determine the abilities it taps, and teach those skills directly. As this is the first year of the program, the curriculum is in the early stages of development and no objective results

are available as yet.

Susan Gray of Peabody College is conducting several types of preschool programs. The one I would like to describe closely resembles Gordon's program in consisting only of home visits, but the children in Gray's program are approximately four years of age, and the home visitors are professionals. The children receive weekly visits during which a teaching session is conducted in the presence of the mother. An explanation of the curriculum is given to the parent, and additional assignments are left with her to use with her child during the week. An informal test is administered to the child at the beginning of each visit to determine how much ground has been covered and to motivate the parent to fulfill the assignment. It has been found that most of the parents become very active and enthusiastic participants by the end of the year. This home visit program differs from that in the Early Education Program in that no effort is made to keep siblings out of the teaching situation. Rather, they are encouraged to participate since one of the major goals of the program is to facilitate the cognitive growth of the younger children in the home who are not the direct targets of intervention. The gain in IQ of the four-year-olds, and their younger siblings, is being compared to a comparable group of children and siblings who are participating in classroom programs using a similar curriculum.

At the Children's Center, in New York, Bettye Caldwell is operating an educationally-oriented day-care program for children six months of age to five years, one-half of whom are middle-class and one-half lower-class. The curriculum is described as enriched but relaxed. The children spend three to nine hours per day in class. The program becomes progressively more structured as the children approach kindergarten age. The program for four-year-olds is pre-academic in nature and focuses on perceptual training and concept formation. The children appear to be suffering no damage as a result of their prolonged absence from their mothers. With

the number of working mothers increasing steadily, and the importance of cognitive stimulation gaining wider acceptance daily, it is likely that the Caldwell program can offer us a glimpse of education in the near future.

It is apparent that early intervention programs are proliferating rapidly, and that a diversity of approaches, starting at the nursery level, are being explored. This is most fortunate, for it would be sad indeed if a field which started to flourish less than a decade ago were to become so frozen that there would be no room for fresh ideas. We still do not know for certain what the best program is, for which type of child, offered at what age level, for how long a period. As the answers begin to come in, in the form of evaluations, and follow-up studies of the many on-going programs, it might be worth keeping in mind the relatively unexplored areas that still remain. To mention a few, what is the most effective program for fathers of young disadvantaged children? What combination of approaches, offered at different age levels, is optimal? Is it feasible for industries and institutions employing a large number of unskilled employees to operate child-centers on their premises and provide released time for parents to participate in the educational program? Can older siblings be trained to provide stimulation for their younger brothers and sisters? What would be the effect of cognitively-oriented programs on non-disadvantaged preschoolers? Would a differential educational approach to boys and girls be beneficial? (Kagan and others have found a sex difference in mode of responding even in early infancy.) And finally, is it true, as an increasing number of educators have been implying, that preparing very young children for later competence in school is the best foundation for mental health that can be offered? I hope that the answers to these questions will be forthcoming soon.